

RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

## SAW Components

### SAW RF filter

Diversity RX Band 13 & 17

Series/type:	B8321
Ordering code:	B39751B8321P810
Date:	August 27, 2013
Version:	2.0

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# SAW Components

## SAW RF filter

Diversity RX Band 13 & 17

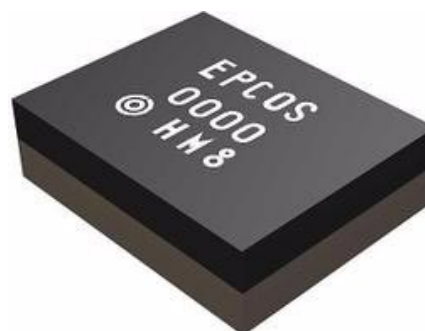
<b>Series/type:</b>	<b>B8321</b>
<b>Ordering code:</b>	<b>B39751B8321P810</b>
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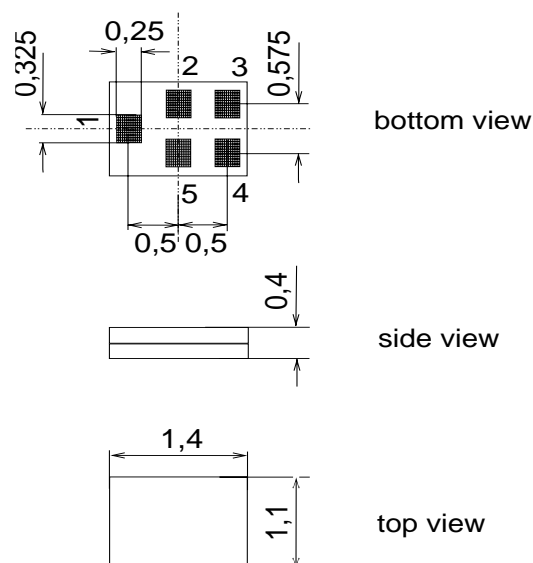
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**Application**

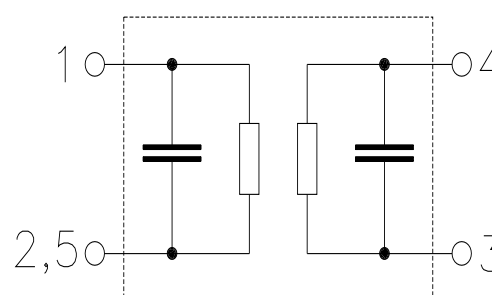
- Low Loss RF filter for band 13&17, DRX path
- Usable band width 22 MHz
- Unbalanced to balanced operation (50 Ω/100 Ω)
- Very small size and low height


**Features**

- Package size 1.4 x 1.1 mm<sup>2</sup>
- Max. Package height 0.45 mm
- Tolerance of Package dimensions +/-0.1mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


**Pin configuration**

- 1 Input
- 4,3 Output
- 2, 5 To be grounded



**Data Sheet**

**Characteristics**

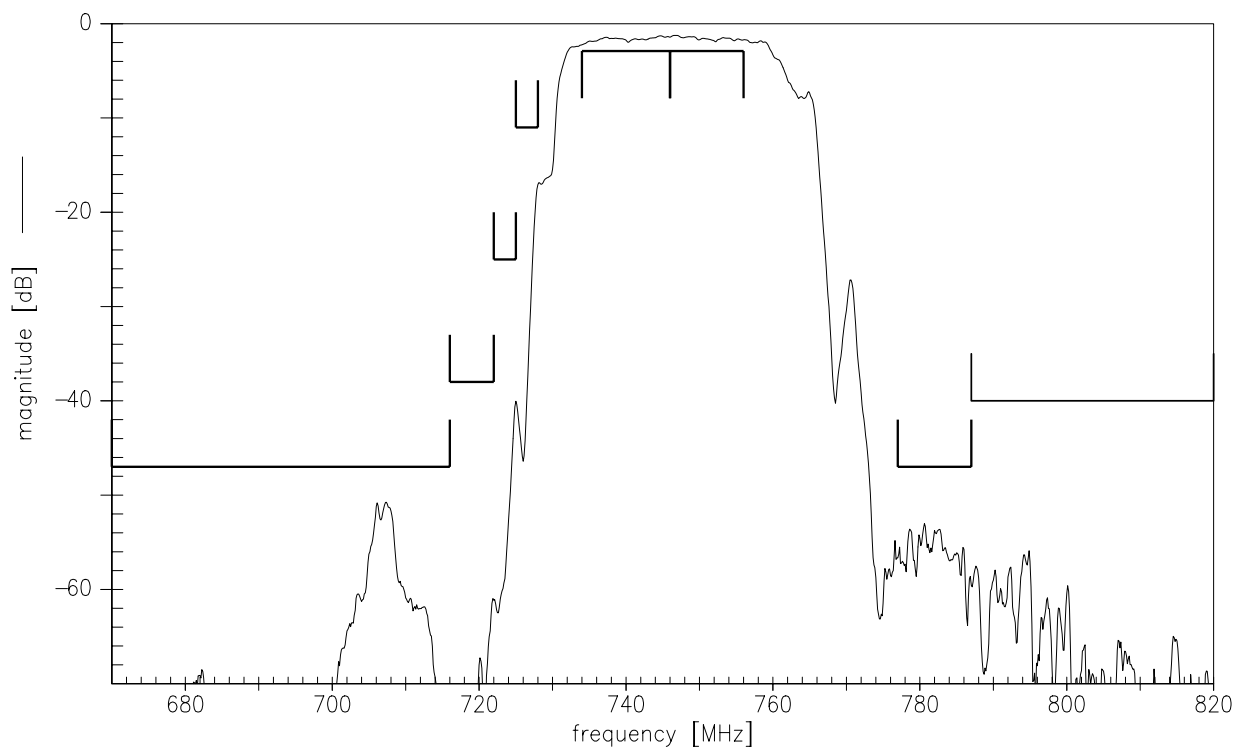
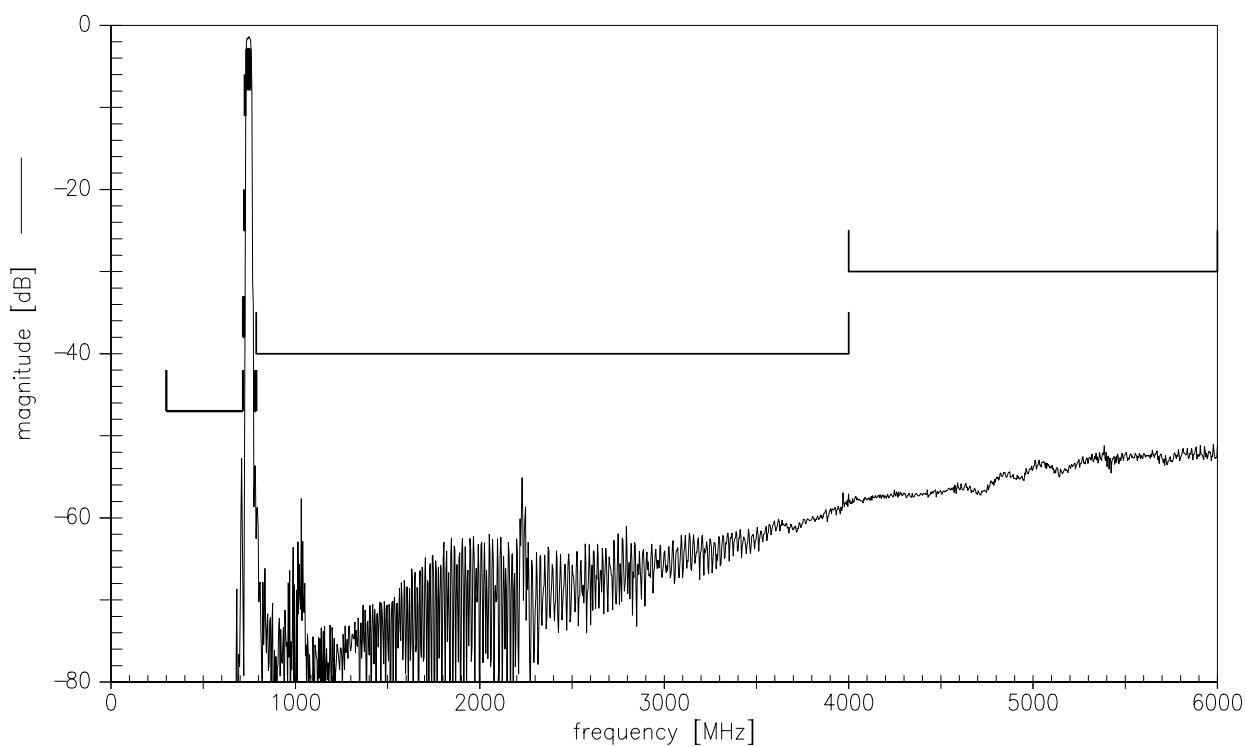
Temperature range for specification:  $T = -20\text{ °C to } 85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 100\ \Omega$  (balanced)

		B8321			
		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	745.0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
734.0 ... 746.0 MHz		—	2.2	2.9	dB
746.0 ... 756.0 MHz		—	2.0	2.9	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
734.0 ... 746.0 MHz		—	0.7	1.7	dB
746.0 ... 756.0 MHz		—	0.8	1.7	dB
<b>Input VSWR</b>					
734.0 ... 756.0 MHz		—	1.8	2.1	
<b>Output VSWR</b>					
734.0 ... 756.0 MHz		—	1.8	2.1	
<b>Common mode rejection ratio</b>					
734.0 ... 756.0 MHz		—	33	27	dB
<b>Attenuation</b>	$\alpha$				
10.0 ... 704.0 MHz		47	80	—	dB
704.0 ... 716.0 MHz		47	55	—	dB
716.0 ... 722.0 MHz		38	60	—	dB
722.0 ... 725.0 MHz		25	40	—	dB
725.0 ... 728.0 MHz		11	18	—	dB
777.0 ... 787.0 MHz		47	52	—	dB
787.0 ... 4000.0 MHz		40	55	—	dB
4000.0 ... 6000.0 MHz		30	52	—	dB
<b>Attenuation</b>	$\alpha_{\text{meam}}$				
722.0 ... 728.0 MHz		20	30	—	dB


**Maximum ratings**

Operating temperature range	$T_{stg}$	-30/+85	°C	
Storage temperature range	$T_{stg}$	-40/+125	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	100 <sup>1)</sup>	V	machine model, 1 pulse
Input power	$P_{IN}$	15	dBm	continuous wave, 55°C , 50000h

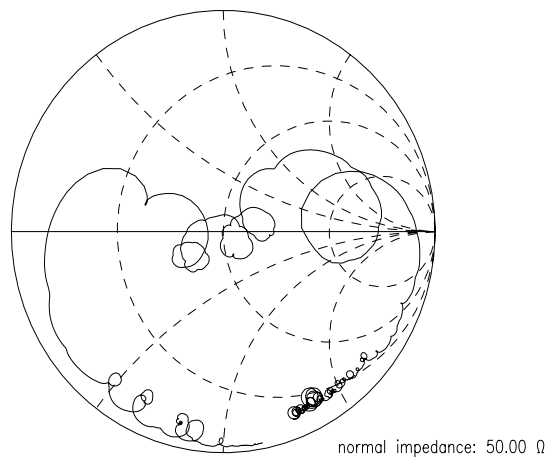
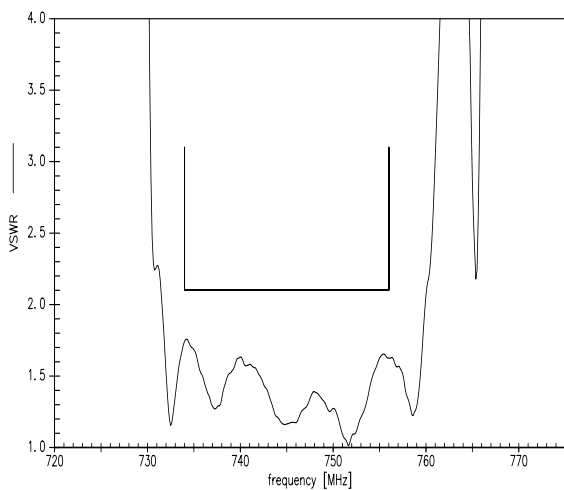
<sup>1)</sup> acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulses.


**Transfer function (narrow band)**

**Transfer function (wide band)**


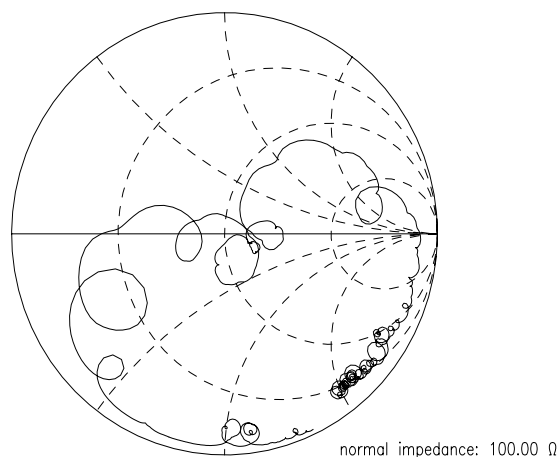
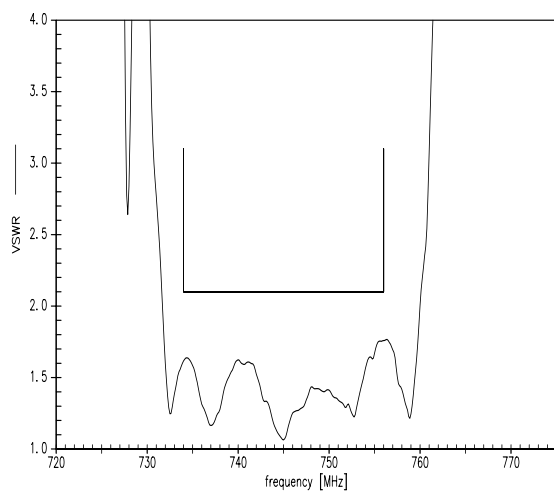
**Data Sheet**



**S11 VSWR**



**S22 VSWR**






**References**

<b>Type</b>	B8321
<b>Ordering code</b>	B39751B8321P810
<b>Marking and package</b>	C61157-A8-A3
<b>Packaging</b>	F61074-V8237-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B8321_NB.s3p, B8321_WB.s3p see file header for port/in assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8 <sup>th</sup> , 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
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<b>Matching coils</b>	See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a>

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